

Appln. No. 10/089,163
Reply to the Office Action of June 18, 2003

REMARKS

Claims 1-7 and new Claims 8-20 are active in the present application. Reconsideration is respectfully requested.

Applicants' representative wishes to thank Examiner Moore for the helpful and courteous discussion of December 16, 2003. As a result of the discussion, it is believed that the issues in the case have been clarified and that the prosecution of the application has been materially advanced.

Claim Amendments

Claim 1 has been amended in order to make minor changes in terminology to improve upon the language of the text and to delete reference to fluorine substituted monovalent hydrocarbon from the claim. New Claims 8-20 have been added and these claims are supported by the text of the specification at pages 8-18. Accordingly, no new matter has been added to the case and entry of the amendments and new claims into the record is respectfully requested.

Invention

The present invention is directed to an ocular lens material which comprises a copolymer obtained by polymerizing a monomer mixture consisting essentially of:

(a) an organosiloxane monomer of formula (I), (b) a (meth)acrylate monomer of formula (II) and (c) an organosiloxane monomer of formula (III), each as shown and defined in Claim 1. The ocular lens of the invention has good oxygen permeability and good

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mechanical strength, durability and flexibility. The lens also possesses good shape stability, transparency and wettability with water.

Prior Art Rejection

Claims 1-5 stand rejected based on 35 USC 102(b) as anticipated by Gruber et al, U.S. Patent 5,196,493. This ground of rejection is respectfully traversed.

The Gruber et al document is relevant to the invention because it discloses a contact lens material that is prepared by copolymerizing a mixture of vinyl group containing monomers of which four are essential, which are a siloxane monovinyl monomer, a siloxane oligovinyl monomer, a fluorine-containing vinyl monomer and a hydrophobic vinyl monomer that has a bulky hydrocarbon radical. Given the types of monomer compounds disclosed in the patent as examples of each of these four vinyl monomers, it is clear that the essential and critical difference between the composition of the ocular lens of the present invention as now claimed and the polymerized material of the ocular lens of the patent is that none of the monomer components of the present ocular lens contains a fluoro-substituted radical so that the polymerized material of the present ocular lens contains no fluorine. Further, the present claims have been amended to exclude the possibility of the claims of being open to the inclusion of fluorine substitution by use of the transitional phrase "consisting essentially of." This, of course, is not true of the polymerized ocular material of the patent. Accordingly, the Gruber et al patent does not anticipate the present invention as claimed.

In fact, the difference which the above-discussed distinction between fluorine presence and no fluorine present makes on the properties of ocular lenses is significant, and is

such as to obviate a potential obviousness rejection. As mentioned above, the ocular lens of the present invention exhibits a variety of well balanced properties. Tables 1 and 2 of the present specification demonstrate this where nine different polymer compositions are shown within the scope of the invention that have ultimate strain values ranging from 60 to 79 %. In contrast thereto the polymer compositions of Gruber et al must contain a monomer component that has significant fluorine substitution. The result of such fluorine substitution in the form of monomer (c) of the patent is that the ocular or contact lenses that result have markedly inferior ultimate strain values. This is demonstrated by the comparative evidence in the attached Declaration (37 CFR 1.132). Page 2 of the declaration discloses the copolymerization of four vinyl monomers, one of which is 2,2,2-trifluoroethyl methacrylate. The resulting polymer, however, exhibited a low ultimate strain value of only 11.6 %. This value is markedly inferior to the ultimate strain values obtained with embodiments of the present ocular lens material as can be seen from the discussion above. In view of the material property distinction between the ocular lens material of the present invention and the polymer material of Gruber et al, it is believed that the presently claimed ocular lens material and ocular lenses are unobvious over the patent.

The deficiencies of Gruber et al are believed to be neither overcome or improved upon by the cited JP reference because it is directed to a surface treatment of contact lenses to improve upon various properties of the lenses. Such is not a concern in the present invention and therefore the JP reference does not bring the Gruber et al patent closer to the invention as claimed. Withdrawal of the obviousness ground of rejection over Gruber et al in view of JP 08227001 is therefore respectfully requested.

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It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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